



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D119-796-251
Job Sheet 169659



Part No: D119-796-251

Job Qty: 1 ea

Part Name: Aft Crosstube Installation With Step (No Hardware)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/18/17

Job Tracking No:

Due Date: 12/29/17

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG D119-796-251 REV E, IIN-D119-796 REV F IPP REV:A 14.09.09 NEW ISSUE DD VERF:JLM IPP
REV:B 14.10.15 AS PER REV.A DD VERF:JLM IPP REV:C 14.11.19 AS PER REV.C DD VERF:JLM IPP
REV:D 14.12.09 AS PER REV.PC6 DD VERF:JLM IPP REV:E 15.02.11 AS PER REV D JLM VERF:DD IPP
REV:F 17.12.11 REMOVE PACK KIT DD VERF:DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/28/17	0.00	0.00	Start Up Crosstubes-1	✓	AS DEC 22 2017
130	Crosstubes	1 pcs		12/29/17	0.00	0.51	Crosstubes-1	✓	AS DEC 22 2017
140	QC	1 pcs		12/29/17	0.00	0.00	QC5		AS
145	DC	1 pcs		12/29/17	0.00	0.00	DC		AS
150	Packaging	1 pcs		12/29/17	0.00	0.00	Packaging3-1	✓	AS DEC 22 2017
160	QC21-FG	1 Ea		12/29/17	0.00	0.00	QC21	✓	AS

Part Op 130 - 1- Install step and clamp with the proper position per dwg D119-796-251 ***Torque all clamps to 50 IN-LBS max.***
Descriptions: 140 - ***RE-CHECK TORCQUE ON CLAMP AS PER DWG.***

145 - Photocopy bluefile and create labels as per PPP D119-796-251 chg 002

150 - Identify and pack for shipping as per PPP D119-796-251

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D119-796-241 105573	①	11	0	0
	D5123-3 5006028	④	419	0	0
	D5149-043 5011526	②	8	0	0
	MS21920-25 1137963-1584	①	153	0	0

Part Specifications

Specifications could not be found.

Plex 12/18/17 10:48 AM Dart.lajeunesse.marie

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. _____		Rework ☐		PART NO: D119-796-251 Revision: _____ Operation: Start up Operation Change No: CHG004 Mfg Date: 12/22/17 Job No: 169659			
NCR No. _____		Scrap ☐					
		Use-as-is ☐					
Date: _____		Suspected Unapproved ☐		Therm ☐			
Step #: _____							
Description Work Order Deviation							
Root Cause							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature ☐	Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 CANADA TEL: 1 613 632-5200 Email: sales@dartaero.com www.dartaerospace.com			
Design ☐	Operator ☐	Bending ☐	Set-up ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Rev ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/D ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamin ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Counters ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too S ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructio ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐				
Past Expiry Date ☐	Manufacturing Process ☐						
Misidentified ☐	Past Due ☐						
OTHER: _____						Misaligned/off center ☐	
						Turning Sequence ☐	

Engineering ☐
Quality ☐
Other ☐

QSI042) Approval

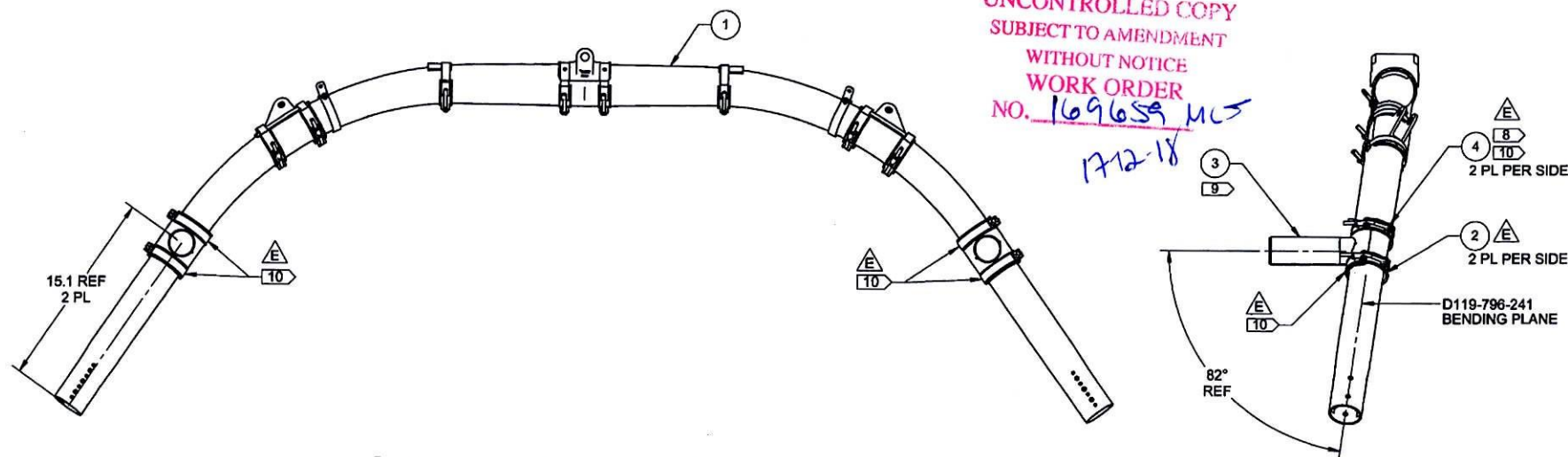
Completed By

and / Supervisor
Approval Verification

QA Coordinator
Approval

Dimensioned Wrong
of Dimensions
Under tolerance
Incorrect
Lost/Missing
Moved
ing
ad

ITEM	QTY	P/N	DESCRIPTION
	X	D119-796-251	XTUBE ASSY (AW119 MKII AFT)
1	1	D119-796-241	XTUBE ASSY (AW119 MKII AFT)
2	4	D5123-3	CUSHION
3	2	D5149-043	AFT STEP ASSY
4	4	MS21920-25	CLAMP



D119-796-251 XTUBE ASSY (AW119 MKII AFT)

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 METHOD 6.5
- 7) WEIGHT: 29.9 lbs
- 8) TORQUE MS21920-25 CLAMPS TO 50 IN-LBS MAX
- 9) LOCATE STEP USING POST FITTING ON CROSSTUBE
- 10) POSITION MS21920 CLAMPS SECURING THE STEPS AS SHOWN. THE THREADED PORTION OF THE CLAMP MUST FACE THE SAME DIRECTION AS THE STEP

E	MODIFY CLAMP ORIENTATION, ADD NOTE 10, REMOVED SECTION A-A (PAR16-527)	ML	17.02.10
D	D5123-3 WAS D5123-9, MS21920-25 WAS -28, ADDED SECTION A-A	AP	15.01.19
C	RE-DESIGN STEP INSTALLATION	DB	14.11.24
B	D2274 RADIUS BLOCK WAS D5153-1, AN4C12A WAS AN4C10A	AP	14.10.04
A	NEW ISSUE	AP	14.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	NO	DRAWING NO.	REV. E
MFG. APPR.	DD	D119-796-251	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII AFT)	NTS
DATE	17.02.10	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR CONTAINED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
2017-05-04
ECN17-538

APPROVED

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					